title: Run SUAVE Locally description: Start running SUAVE and participating in the chain itself keywords: - build - suave - setup - practice

You can use suave-geth to start a local SUAVE devnet.

There are two ways to work withsuave-geth:

1. ✓ Install the latest release binary

2.

♀ Build from source

Latest release binary

bash curl -L https://suaveup.flashbots.net | bash

Start your local devnet with:

bash suave-geth --suave.dev

The --suave.dev flag sets some defaults which are useful when developing on SUAVE.

Building from source

:::info

We recommend that you use Golang v1.21 or newer.

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Clone the <u>suave-geth</u> repository:

bash git clone git@github.com:flashbots/suave-geth.git cd suave-geth

Build the binary:

bash make suave

Start the local devnet with:

bash ./build/bin/suave-geth --suave.dev

You can check that the suave binary is available in ./build/bin/ with:

bash ./build/bin/suave-geth --version

▶ Missing packages

Testing the devnet

Compile the example contracts:

▶ What is Forge?

bash cd suave && forge build

Create a few example transactions:

bash go run devenv/cmd/main.go

Execute a RPC request with curl like this:

bash curl 'http://localhost:8545' --header 'Content-Type: application/json' --data '{ "jsonrpc":"2.0", "method":"eth_blockNumber", "params":[], "id":83 }'

If you built from source (but not if you're running Docker), you can attach to the usual Geth javascript console to get any interactive data you need with:

bash ./build/bin/suave-geth attach /tmp/geth.ipc

▶ IPC not found

From within the console, you can run:

bash eth.accounts[0]

This should return "0xb5feafbdd752ad52afb7e1bd2e40432a485bbb7f" - the default funded account for local development.

bash eth.getBalance(eth.accounts[0])

Should return a really large number 1.1579...e+77. If you try eth.getBalance("<your_new_address>") instead, you should see 0.

If you try:

bash web3.eth.blockNumber

It should tell you the block height of your local network.

What am I actually running?

The main actor in the SUAVE protocol is called a "Kettle". Kettles house all components necessary to perform confidential compute.

Here is the architecture of a Kettle on the Rigil Testnet. When you start a local SUAVE devnet, you're running all the stuff in the purple square (but not the domain specific services, i.e. nodes connected to other chains from/to which you wish to receive or send bundles).

You can read more about exactly what a Kettle contains in architecture section of the Technical Specs